



## SEQUENCE LISTING

#16

RECEIVED  
MAY 21 2003  
TECH CENTER 1600/2800

&lt;110&gt; Jean-Louis Ruelle

<120> BASB019 Proteins and Genes from  
Moraxella Catarrhalis Antigens, Antibodies, and Uses

&lt;130&gt; BM45311

&lt;140&gt; US 09/674,779

&lt;141&gt; 2001-01-03

&lt;150&gt; PCT/EP/99/03038

&lt;151&gt; 1999-05-03

&lt;150&gt; GB9809683.7

&lt;151&gt; 1998-05-06

&lt;160&gt; 14

&lt;170&gt; FastSEQ for Windows Version 4.0

&lt;210&gt; 1

&lt;211&gt; 519

&lt;212&gt; DNA

&lt;213&gt; Moraxella catarrhalis

&lt;400&gt; 1

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&lt;210&gt; 2

&lt;211&gt; 172

&lt;212&gt; PRT

&lt;213&gt; Moraxella catarrhalis

&lt;400&gt; 2

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Leu	Thr	Phe	Met	Thr	Gly	Cys	Ala	Asn	Lys	Ser	Thr	Ser	Gln	Val	Met
	20						25						30		
Val	Ala	Pro	Asn	Ala	Pro	Thr	Gly	Tyr	Thr	Gly	Val	Ile	Tyr	Thr	Gly
	35						40					45			
Val	Ala	Pro	Leu	Val	Asp	Asn	Asp	Glu	Thr	Val	Lys	Ala	Leu	Ala	Ser
	50					55				60					
Lys	Leu	Pro	Ser	Leu	Val	Tyr	Phe	Asp	Phe	Asp	Ser	Asp	Glu	Ile	Lys

65 70 75 80  
 Pro Gln Ala Ala Ala Ile Leu Asp Glu Gln Ala Gln Phe Leu Thr Thr  
 85 90 95  
 Asn Gln Thr Ala Arg Val Leu Val Ala Gly His Thr Asp Glu Arg Gly  
 100 105 110  
 Ser Arg Glu Tyr Asn Met Ser Leu Gly Glu Arg Arg Ala Val Ala Val  
 115 120 125  
 Arg Asn Tyr Leu Leu Gly Lys Gly Ile Asn Gln Ala Ser Val Glu Ile  
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 165 170

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 Val Ala Pro Asn Ala Pro Thr Gly Tyr Thr Gly Val Ile Tyr Thr Gly  
 35 40 45  
 Val Ala Pro Leu Val Asp Asn Asp Glu Thr Val Lys Ala Leu Ala Ser  
 50 55 60  
 Thr Leu Pro Ser Leu Val Tyr Phe Asp Phe Asp Ser Asp Glu Ile Lys  
 65 70 75 80  
 Pro Gln Ala Ala Ala Ile Leu Asp Glu Gln Ala Gln Phe Leu Thr Thr  
 85 90 95  
 Asn Gln Thr Ala Arg Val Leu Val Ala Gly His Thr Asp Glu Arg Gly  
 100 105 110  
 Ser Arg Glu Tyr Asn Met Ser Leu Gly Glu Arg Arg Ala Val Ala Val  
 115 120 125  
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 130 135 140  
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 ggggaacgcc gtgcggtggc ggtacgcaac tatttgctta gtaaaggcat caatcaagcc 420  
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 Val Ala Pro Asn Ala Pro Thr Gly Tyr Ala Gly Val Ile Tyr Thr Gly  
 35 40 45  
 Val Ala Pro Leu Val Asp Asn Asp Glu Thr Val Lys Ala Leu Ala Ser  
 50 55 60  
 Thr Leu Pro Ser Leu Val Tyr Phe Asp Phe Asp Ser Asp Glu Ile Lys  
 65 70 75 80  
 Pro Gln Ala Ala Ala Ile Leu Asp Glu Gln Ala Gln Phe Leu Thr Thr  
 85 90 95  
 Asn Gln Thr Ala Arg Val Leu Val Ala Gly His Thr Asp Glu Arg Gly  
 100 105 110  
 Ser Arg Glu Tyr Asn Met Ser Leu Gly Glu Arg Arg Ala Val Ala Val  
 115 120 125  
 Arg Asn Tyr Leu Leu Ser Lys Gly Ile Asn Gln Ala Ser Val Glu Ile  
 130 135 140  
 Ile Ser Phe Gly Glu Glu Arg Pro Ile Ala Phe Gly Thr Asn Glu Glu  
 145 150 155 160  
 Ala Trp Ser Gln Asn Arg Arg Ala Glu Leu Ser Tyr  
 165 170

<210> 9

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer sequence

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21

<210> 10

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Primer sequence

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19

<210> 11

<211> 59

<212> DNA

<213> Artificial Sequence

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<223> Oligonucleotide

<400> 11

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<211> 65

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<213> Artificial Sequence

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<223> Oligonucleotide

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<211> 14

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<223> peptide

<400> 14

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1 5 10